

GANDHAMARDHAN : A MELTING POT

A CASE STUDY OF
A TRIBAL STRUGGLE FOR
SURVIVAL
&
ENVIRONMENT

DOCUMENTATION UNIT

CENTRE FOR
YOUTH & SOCIAL DEVELOPMENT

65, SATYA NAGAR

BHUBANESWAR - 7

[ORISSA]

06890

Community Health Cell
Library and Documentation Unit
367, "Srinivasa Nilaya"
Jakkasandra 1st Main,
1st Block, Koramangala,
BANGALORE-560 034.
Phone : 5531518

C O N T E N T S

CHAPTER	PARTICULARS	PAGE NO
ONE	PREFACE	1
TWO	BACKGROUND TO THE DISPUTE	2
THREE	THE PROJECT AND THE PEOPLE	7
FOUR	GANDHAMARDAN SURAKHYA YUVA PARISHAD (AN ACTIVIST TEAM IN THE FORE POINT)	15
FIVE	THE ROUT COMMITTEE REPORT	20
SIX	PEOPLES' RESPONSE TO DR. M.K. ROUT'S COMMITTEE REPORT	27
SEVEN	CONCLUSION	29

CHAPTER - ONE

P R E F A C E

This is a straightforward telling of a story, the true story, of a Tribal Revolt in our GHANDAMARDAN HILLS. It began with the arrival of the BALCO COMPANY to mine Bauxite in May 1983 and it is still continuing today.

It is an account of the tribal peoples stand against this operation, an operation which threatens to destroy the habitat that sustains them. The author has rendered an account that is detailed, factual and chronological, based on research made during a field visit to the areas, on interviews and on a reading of the published documents and Newspaper items relating to the affair.

It is being published with one aim; that those who are involved in similar struggles will take inspiration from the success of this movement, and will perhaps learn from the lesson that it teaches us.

We, therefore offer this account to those people, and hope that this publication will help in some way in the struggle to protect the interests of the poor.

CENTRE FOR YOUTH AND
SOCIAL DEVELOPMENT

Contd....2

CHAPTER - TWO

" BACKGROUND TO THE DISPUTE "

The Govt. of India published a gazette notification in 1971, about the bauxite deposits in the Gandhamardan Hills, This hill system is 170 Km. from Sambalpur (Orissa) and known all over India, as an abode of Lord Nrusinghnath and Harishankar. Bharat Aluminium Company, (BALCO) which has been busy in mining Bauxite and producing aluminium in the adjoining Korba Hills of Madhya Pradesh for the last thirteen years, had applied for the same in the year 1976. The Govt. of Orissa sanctioned the lease on September 11, 1981.

The 35 sq.km area which has been leased to BALCO is located on top of the Gandhamardan Hills which lie in the Sambalpur and Bolangir Districts of Western Orissa. On the top is a plateau from which 22 perennial streams originate. These streams are named, (1) AKALI STREAMS (2) DUMBERPANI (3) KHANDI JHARANI (4) PAPA HARINI (5) GOPESWAR (6) GUPTESWAR (7) DURGEI (8) MOTIPALI (9) THUTIKANI (10) NAGJHORIA (11) KADALI (12) SAVADI (13) MAHADEV (14) KODALI-STREAM (15) GESARA (16) BUTERA (17) KANTI (18) HARISANKAR (19) TURELA (20) BRAHMI (21) CHANDASILET (22) DANGASTREAM.

The two ancient temples on top of the Yange Nrusinghanath and Harishankar were built around the 11th Century. They are an important pilgrimage in Western Orissa and the Chhatisgarh and Raipur District of Madhya Pradesh.

The stream systems provide water to villages and to minor irrigation projects. They bring sustenance to about fifty thousand people in the area. Dense forests of Mahua, Kendu, Char, Sal, Neem and other species cover the slopes of these hills. The waters from these twenty two perennial streams form the Ong & Suktai, two tributaries of the Mahanandi, Orissa's major river system.

The Hill hosts 125 identified rare herb plants which attracted the local people to establish an ayurvedic college & Research Institute on various medical plants. These important plants include Bhrungaraj, Pasaruni, Banasemi, Ranasmi; Banakandul Rana Kandul, Devenasan, Debasaya; Ghalizikar; Chittor; Chhali, Thutitingia, Butikundhei, Brahamanilata, Mahaja, Kandamahajal, Dhobamahazal, Devraj; Bamaraj, Bhojaraj; Visalyakarani, Hanumanoove, Gindel; Ashifruit; Phanaphana, Meda, Rupen; Bajichanda; Dhalamuli; Boikiria; Panri; subundhi; Kalkancha etc.

Madhuvan, the historical fruit garden comprising 2,000 types of edible fruits like Mango, Orange, Lemon, Tava; Jackfruits, Guava; Seetaphal, Banana; Ambera Kaitha, Kendu, Mahul etc., enriches the hills system.

PROJECT OUT LINE:-

The 52 core Bauxite mining project of Bharat Aluminium Company (BALCO) came into operation on January 1984, but the project was actually inaugurated on 2nd May 1983, by the Chief Minister of Orissa. The project area covers around 960 hectares of land around Bolangir, Sambalpur and Kalahandi District. This project is considered to be the second largest Bauxite project in India. Prior to the implementation of this project, the mining Deptt. Orissa

had undertaken a survey in Gandhamardan Hills to identify the Bauxite area. For this purpose, the entire Hill system had been divided into 10 blocks. The survey found that from BLOCKS 8,9,10 Bauxite could be raised. Now the mining area is located at block Nos. 8,9, and 10 in the hill top. It ranges to a length and Breadth of 10 km, and 1 km. respectively. It is estimated that 230 Billion tonnes of Bauxite could be collected from this project at an average rate of six lakh tonnes per year.

The pamphlet circulated on the inauguration day claimed this project to be important for the social and economic development of the villages around the hill, by providing facilities for electrification, housing, food preservation packaging, defence, space projects and employing five hundred local people. This pamphlet also stressed the provision for environmental balance of Rs.15 Lakh per year by BALCO.

PROJECT IN PROGRESS:-

During the last two and half years, besides the construction of a BALCO Colony, mining has been started on the plateau and foundations have been laid for a huge, crusher machine. To get this mammoth machine to the top bulldozers, differs and compressor machines blasted the rocks, to widen the existing road. At some places, the road has been made 30 metres wide. Felling of dense forests upto 5 km. is in progress to make way for a 30 metre wide, rope way; A 25 km. long railway will be constructed in the foot hills after clearing a dense forests. For all this, the felling of trees and blasting of rocks is also in progress.

AREAS TO BE COVERED UNDER THE PROJECT:-

i)	Mining Area	107.00
ii)	Rope Ways	12.13
iii)	Wagon Loading Complex	15.70
iv)	Town-ship	2.01
v)	Railway siding	25.64

THE CHANGING FACE OF THE HILLS:-

The heavy destruction of the hills is visible from miles away. One can see two bald patches on the live green slopes of the Gandhamardan. One patch is the happy point (which has come to be known as unhappy point) where the hills were heavily blasted to make the road. The other point is the crusher site where the hill is scarred by a 30 metre deep open mine.

The blasting at the happy point was so intense that its vibration felled the country old 30 ft. height 'Garud Pillar' at Nrusinghnath temple on the foot hills.

BALCO has felled over, 60,000 valuable trees while constructing a 16 km road and widening it from 6.5 km metres to 10 metres for two-way traffic. At places the road is 30 metres wide.

The road has been made the 'Graveyard' of trees, as long were either burried under the road or burnt on various places in the hills, so as to obliterate the evidence of this murder of trees.(Wastages of trees)

In addition over 2,000 fruit trees, comprising madhuvan have been felled to made the reservior which will supply water to the upcoming BALCO town-ship. Innumerable Mahua, Kendu & Mango trees were slaughtered, logs of more

than 10 feet in girth were lying there. This long reservoir with a storage capacity of 36.50 hectare metres was constructed by the irrigation department of the Government of Orissa.

The felling of dense forest and uprooting of all the vegetation during road building, the installation of crushers at the top of hills and the building of rope ways has resulted in the accumulation of a lot of loose soil. During the last monsoon this soil caused siltation of the Khandi Jharani stream and dam. The durgai Jharani minor irrigation project dammed the water of a major perennial stream. For this project (Originally supposed to irrigate 180 acres of land) a huge fruit orchard belonging to manbhang and pipal khunta village was felled to construct the reservoir. A year has gone by since the project was completed but not only has no water been released for irrigation, but villagers down stream now receive only a trickle of water and even that is only done at the whim of the officials who release the water.

Contd.....7

CHAPTER - THREE

" THE PROJECT AND THE PEOPLE "

Gandhamardan, the Historical Hill system, provides permanent subsistence to 50 thousand people in one way or another. Though the area has both an adivasi and a non-
adivasi population it is the former who will be most affected by the degradation of the region.

Dashumati Bai's family owns about two acres of land in Motipali Village. The single crop produced on the non-irrigated land can not sustain this family of six for more than six months. There after she, her daughters and some times young sons work in the forests collecting Mahua Flowers and fruits, Char, Bamboo shoots and canas. Most of this is sold to obtain cash to by grain, salt and whatever other essentials they need.

In Kendubhat village, the only water sources is the well whose level falls so low that at the height of summer that water has to be rationed to two buckets per household. The only other sources of water is the stream about two Km. away. If BALCO cuts away Gandhamardan, destroys our trees and our streams dry up we shall have to flee the areas'. Says Bimalbai, a 40 year old labourer.

In Magurmāl, a village inhabited by 22 Adivasi families, the women makes bamboo baskets. The men bring ten bamboos once a week from the forest. They have to pay a licence fee of five rupees for this but they are not sure of getting this licence every time. (Though a big paper mill is exploiting the Bamboos of this area after paying a nominal price). When they go to the market to sell their baskets, the forest department personnel may seize their things, Though the entire family is engaged in basket-making, they earn only 15/- Rupees a week.

Sale-pale is a village of Musinghath's Jagir. An irrigation reservoir constructed two years ago is sitting up because of mining on the plateau. Duryodhan Pinjra says the silt from the crusher site is coming here. The land is being becoming too dry for cultivation.

Khandicharan is a village whose 40 families completely depend upon the hills. Hanumant Malik reacted by saying that, " We got kendu fruits from Candhamardan". This hill protected us. If the streams dry up, how will we survive. We live on food grains for six months, and for the rest of the year we rely on wild fruits and roots, "said Jaladhar of Vedapati village.

BIRTH OF THE REVOLUTION:-

For the last two and half years, the local people have witnessed the continuous destruction of the religious mountain by BALCO Company. Their realisation has been a slow one. The discontent of the local populace, mainly the adivasi was converted proper into an agitation by a group of social activists, though village to village mobilisation. Before the agitation came to formal shape, lots of individuals, institutions and intellectuals had expressed their grave concern about the destruction of the hills and the misguided development schemes of the Govt. A lot of intellectual protests have been made by a handful of people from different walks of lives. Journalists, Lawyers, Stateman & Environmentalists have freely expressed opinions against BALCO Project. In a paper published in 1963, in the regional research Laboratory (RRL) Bulletin, Dr. G.Panigrahi of the Botanical Survey of India mentioned that of the 220 useful plants examined by him in the area, 125 had medical qualities. This paper was written not on the basis of an independant survey but from an examination

of the plant collection of Buti Baba, an old adivasi who had spent his entire life collecting these plants. Dr. Artabandhu Mishra, a lecturer at the school of life science in Sambalpur University, who is involved in the agitation, has been trying to interest scientist in undertaking such a survey.

The concerned state and district machineries have also been making anti-BALCO project suggestions to the Government in various ways. A few extracts from these can be cited here.

Memo No.343 dt. 15.1.83 of the divisional forest office, Bolangir III heads that (a) Deforestation on account of mining will have serious effects regarding supply of fuel wood to the rural population. In the light of this D F O Khariar Memo No. 268 dated 13.1.83, have suggested that the Government do not destroy this hill by BALCO OPERATIONS. In D.O.Note dated 5.2.81, the forest Minister has imposed a ban on mining in Gandhamardan. In his letter addressed to the authority of BALCO, the SDO Padmapur mentioned that the main stream is filled up with eroded sand and soil. This damage has been caused as a result of road construction by BALCO. It has also been clearly mentioned in the working plan of Khariar, 1978-79 to 1989-90 (page No.184) that the main hill stream at Gandhamardan called Kapildhar should not be disturbed in any way. This area has been totally excluded from any sort of exploitation under the plan.

The Orissa High Court in O.J.C. No.26 B of 1985, Misc. case No.31/85 & 364/85, and also the report of the endowment commission No.3271 (1985), clearly warns the authorities to safe guard these religious institutions and water resources from the Bauxite Operation.

The Authority of BALCO started clearing the forest in 13 km. radius at the end of December 1984. Mr. Sirish Bahidar, the founder of the Nrusinghnath & Harishankar Surakhya Committee, supported by Viswa Hindu Parisad, filled a petition against BALCO Authority in the High Court. The High Court issued a summons to representatives of BALCO to attend the court. When BALCO did not comply with the summons a stay-order was put on the progress of work (BALCO) on 21st January 1985. In February 13th, 1985, BALCO submitted an appeal in the High Court to allow it to resume it's work against the stay order.

It pledged in its appeal that in no circumstances would BALCO's operation destroy the ecology. Then the work started again. The heavy machine operation had blasting uprooted the religious Guard Pillar. Against this damage Mr. Sirish Pattanaik again filled a petition against BALCO in the High Court, mentioning disobedience to the previous agreement. The Debota Commission was called to study matter. Their report is yet to be published.

GOVERNMENT'S INSTRUCTIONS:-

Serious pressure from different sources, and the possibility of agitation compelled the Government to be alert. On the 26th August 1985, the State Chief Minister Shri J.B.Pattanaik, convened a meeting to discuss BALCO's environmental Management plan and problem.

(A) The following participated the meeting under the Chairmanship of the Chief Minister :-

- a) Additional Chief Secretary, Orissa.
- b) Shri Satyabhushan Sahoo, M.L.A. Padmapur
- c) Secretary, Revenue, Orissa.

- d) Secretary, Forest, Orissa.
- e) Secretary, Department of Science, Technology & Environment.
- f) Revenue Divisional Commissioner (Northern Division)
- g) Chairman, State Prevention & Control of pollution Board.
- h) Additional Secretary Department of Science, Technology & Environment.
- i) Director, Mining & Geology.
- j) Chairman-cum-Managing Director, BALCO
- k) Deputy General Manager, BALCO.

B) The Chief Minister informed the Chairman-cum-Managing Director, BALCO, regarding the visit of a team on the 18th June 1985 to study the possible adverse effects of the Gandhamardan Bauxite project undertaken by the Bharat Aluminium Company, on the environment. The recommendations of the committee, the following points were read out for discussion including the following points, were read out for discussion:-

- a) BALCO must strictly follow their environment management plan (EMP) and monitor its implementation through a committee consisting of representatives of the State Government and the BALCO.
- b) Immediate attention is to be paid by the BALCO authorities to the road construction on the hill side, so as to prevent land slides on to the Nrusinghnath stream.
- c) Afforestation work in the area should be taken up systematically by involving the local D F O.
- d) A team of Botanists from Sambalpur University is to be sent at BALCO's Experts to locate rare plant species within the area to be deforested, for their subsequent preservation in the Regional Plant Resources Centre Bhubaneswar.

- e) A stone wall should be constructed on the northern slop crusher side to prevent the rolling down of boulders and overburden.

C) It was decided that the Chairman-cum-Managing Director of BALCO, would strictly follow the EMP and for this purpose have a cell in their organisation for its implementation and monitoring. An Environment Management Committee would be constituted to periodically oversee the environmental management of this project and to monitor its implementation. The committee will have the following composition :-

- a) R.D.C. (N.D.) Chairman.
- b) M.L.A. Padmapur and M.L.A. Patangarh.
- c) Collectors, Sambalpur and Bolangir.
- d) One representative from each of the following departments :-
 - e) Department of Science, Technology & Environment (Additional Secretary, D.S.T.E.)
 - f) Forest Department (D.F.O. Khariar and D.F.O. Bolangir)
 - g) Mining & Geology Department. (Director of Mines)
 - h) One representation from the State Prevention & Control of pollution Board (Secretary, S.P.C.P. Board).
 - i) Deputy General Manager, BALCO Convenor. The committee will meet at least once a every three months, or more frequently if necessary.

D. The Chairman-cum-Managing Director, BALCO informed that the committee that two out of three retaining walls had been constructed on the road side and the crusher site,

and BALCO would ensure that land slips do not occur during road construction, and all steps will be taken to see that no boulder or soil falls into the Nrusinghnath stream. Boulders, soil, etc. which had already rolled down would be cleared. They also agreed that all siltation along the streams would be cleared and no water be drawn from the streams or their sources for BALCO's use.

E. It was decided that the entire forestation work within the mined area and outside the mined area would be entrusted to the BALCO authorities so that they would draw upon their successful experiment at Amarkantak (Madhya Pradesh), and so that BALCO could also be held directly responsible for this aspect of the work. BALCO authorities would take up plantation on the hill slopes where forest growth had been damaged or destroyed due to road construction. The Committee set up under the Revenue Divisional Commissioner (Northern Division) will approve and review the plantation programme from time to time.

F. The suggestion to invite a team of Botanists from Sambalpur University at BALCO's cost was accepted.

G. The committee would investigate the complaints regarding vibrations affecting the Nrusinghanath temple and other problems that may come up during the course of the execution of the project.

OTHER MATTERS DISCUSSED DURING THE MEETING:-

The Chief Minister stressed that a development project in Orissa should employ mostly local people so that the good will of the people would always be with the project, for its successful implementation. The Chairman-cum-Managing Director, BALCO, explained that 77 out of 112

people employed in this project to date are from the local area. They would maintain this ratio and also provide employment to displaced persons.

Regarding the employment of displaced persons the Revenue Secretary indicated that the conditional employment offer made by BALCO stipulating a time period limit of one year was not acceptable. He also insisted that training in various skills for the local people should be organised so that the employment generated could be at all levels. The Chairman-cum-Managing Director, BALCO, agreed to abide by the authorities employment procedure for displaced persons and also agreed to waive the conditions stipulating a time period for employment. The list of displaced persons will be furnished by the Revenue Department/Collectors and is expected to be around 200.

To the point raised by the M.L.A. Padmapur, regarding irregularities in employment, the Chairman-cum-Managing Director, indicated that these would be looked into. It was decided that BALCO would take, on deputation, a suitable officer from the State Government (Revenue Department) to be incharge of personnel, including recruitment. As regards selection through the Committee of which local S.D.O. is a member, the S.D.O's views will be accepted as to whether a candidate is local or not, and the alleged irregularities committed in the past in recruitment, despite the S.D.O's protest, would be rectified.

CHAPTER - FOUR

"GANDHAMARDAN SURAKHYA YUVA PARISHAD "
(AN ACTIVIST TEAM IN THE FORE POINT)

Last June, an inter-University National Service Scheme Camp was organised at Nrusinghanath by Sambalpur University. Some volunteers stayed there with the villagers, and the Advasis opened their hearts. Niranjana, of the Chhatra Juba Sangharsa Vahani, Prassana Sahu, an ex-Arya Samajist with socialist associations, Ashutosh, a law student of L.R. Law College and Gautam, a student from a local Ayurveda College, stayed back after the camp and spent several months talking to public in the area and convincing them to fight for their rights. They lived in a hut with the adivasis. The village youth joined ranks and the struggle took a new shape.

Inspired by the late Sevananda Vanaprasthi, Swami Gyanananda Saraswati and Prasanna Kumar Sahoo took up the cause of environment against BALCO. Shri Swami attacked thrice by BALCO agents backed by the vested interested groups. Shri Sahoo and Shri Swami have been actively engaged in this movement and later Shri S.B. Hota, a trade union leader, and Dr. Mishra also joined the group.

This handful of Activists thus formed an association in the name of Gandhamardan Surakhya Yuva Parishad at Paikamal on 10, August 1985, under the convenorship of Miranjan Vidrohi. The Central Parishad consists of six members, Niranjana, Goutam, Ashutosh, Khageswar, Dhanjay and Diamond.

At first the people would not even come out of their houses to talk to the activist groups, but gradually the apprehension reduced, and people joined with G S Y P on a massive scale.

On 19th August 1985, a demonstration of 200 villagers submitted a memorandum to the Paikamal Police Station against BALCO.

After various representations to the Central and State Governments no response was received. At a meeting on 27th September, 1985, the Parishad decided to take up an agitational programme against BALCO operation.

The Dharana programme was organised in front of the B D O's office at Paikmal from 14th October, 85 to 16th October, 85. On the 14th October representatives of 23 villages, on the 15th; 56 representatives of 25 villages; and on the 16th, 70 representatives of 40 villages participated in "DHARNA".

By the end of the Dharna more than 1000 villagers, most of them tribals had demonstrated by procession. A public meeting presided over by prasanna Kumar Sahoo, was addressed by Swami Gayananda, B. S. Hota, N. P. Trivedi, Niranjana Goutam, Smt. Devaki Chatar and other villagers alongwith the Chief Speaker, Shri Krishna Patnaik, a former M.P. and socialist leader.

By the first of December, 1985 breaches of the Parishad had been formed in 20 villages. At Mithapalli, mostly attended by ladies, Satyagraha, agitation was declared on 3-12-85. It was decided to stop all vehicles and its

work of BALCO, such as construction of buildings, roads, railways, and Ropelines and the cutting of trees.

On 25th December, 150 Satyagrahi, including 70 females and 20 children participated this Dharna in front of BALCO's office. On 26th Dec. 200 Satyagrahi including 80 females and 30 children, had joined. The police arrested 69, including 15 females and 12 children alongwith the convenor Niranjan Vidrohi, Gautam, Ashutosh, Prasanna Kumar Sahoo and N.P. Trivedi.

The local BALCO authorities, Mr. R. P. Singh & Mr. Gupta, came to the police station and negotiated with the leaders of the satyagrahis, and admitted the irreparable losses caused by the mining operation. They promised to leave the space within the month, if the Government would allow it.

In the first week of January 86, BALCO requested the Central and State Governments to cancel the lease and allow them to collect Bauxite from NALCO (First published in the daily news paper 'SAMBAD' on 19-1-86.) But the State Government requested the company to continue it's work for a reason that they have not made public continent.

On 23rd January 86 the police had picked up 8 persons including 3 old ladies, from Manabhang village at BALCO's instance.

From 4th Feb 86 to 19th Feb, 'RASTA ROKO' Satyagraha agitation was launched to stop BALCO's vehicles progress towards the Hill for the mining operation. A

total of 700 satyagrahi including 229 females and 63 children had joined the movement. 186 including 87 ladies, were arrested. 74 of which 40 were ladies, were dragged to the Bargarh Sub-Jail 100 km. from Paikmal. They were treated as criminals and hand-cuffed in the court. Among the arrested satyagrahis were, Alekha Patra, Gautam & Bhabani (Students), Radhanath Pradhan, and Ghasiram Mallick (Adivasi Leader).

Now more than 60 villages around the hill have joined in the agitation, though they are not yet free from fear. Voluntary staffed legal cells have been opened at Padampur and Sambalpur to help the agitation.

PRESENT POSITION OF THE AGITATION :-

The Executive Magistrate of Padampur directed the arrested satyagrahis to execute a bond that they would not take part in any future agitation against BALCO. Against this order an appeal has been filed in the District Court, Sambalpur.

BALCO was required to deposit an amount for construction with the State Government. The State Govt. will act as BALCO's agent, and has undertaken the work on behalf of BALCO, using state machineries.

Due to heavy resistance by the G S Y P, BALCO has to progress. The State Government is in a hurry to satisfy the company, and is engaging all relevant

State machineries to complete the work in time. But local labourers are refusing to co-operate with BALCO.

Now bribery is openly begin used to collect labourers. Contractors and petty contractors are moving from village to village using BALCO vehicles from place to place for this purpose. Some labourers from distant places are being picked up in BALCO vehicles. Some people are supporting BALCO under the direction of the ruling party. It is alleged that the local M.L.A. Congress (I) has also been provoking people against the agitation.

The parishad faces all these challenges with support of the local poor people. It is hopeful that it can protect hill, if the present peaceful agitation can be continued.

CHAPTER - FIVE

"THE ROUT COMMITTEE REPORT"

The meeting was immediately followed by the setting up on a Committee under the Chairmanship of Dr. M. K. Rout of the State, Prevention and Control of Pollution Board. The Committee was formed to assess the possible adverse effect of BALCO's Gandhamardan Bauxite Project. The team consisted of three persons namely, Dr. M.K. Rout (Chairman, State Prevention & control of pollution Board); Mr. B. K. Mohanty, Director of Mining & Geology, Orissa, and Mr. G. B. Mukherjee, Additional Secretary, Department of Science, Technology, Environment who visited the North-West side of the Gandhamardan range in Sambalpur district, including the Nursinghnath Temple on 18.6.85.

FINDINGS :-

- (1) The mining (including blasting) operations on the hill top (approx 900 M.S. l. and more) are not likely to affect the Nrusinghnath temple and the structure in its vicinity. Situated at the foot of the range.
- (2) The mining operations in Block 8 on the hill top are not likely to interfere with the water discharge of the Nrusinghnath stream and Kapiladhara water fall.

(3) Provided the BALCO authorities adhere to the environment Management Plan (EMP) drawn up by them the mining operations are not likely to result in :-

- (a) Overburden and mined materials rolling down the hill slopes.
- (b) Un controlled discharge of mined water containing silt, suspensions etc into existing streams and nullas.

(4) More than the bauxite mining operations, the road construction on the hill side has a much higher potential for causing problems including landslides. This may even result in the blocking of the Bursingnath stream in the case of a major landslide.

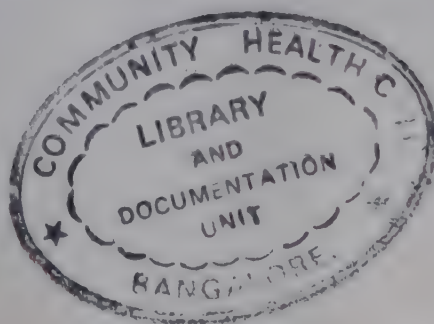
(5) The deforestation (107 ha. approx) at the hill top during the project period will not cause any problem since the maximum area required for early operation will be around 12 ha, and the afforestation will be more than the deforestation.

(6) Deforestation for the serial ropeway, wagon loading complex, township and railway construction is unavoidable, but will be minimised by compensatory afforestation.

RECOMMENDATIONS : -

(1) The environment Management Plan (EMP) submitted by BALCO must be strictly followed and the team meant to monitor its implementation must be immediately constituted for functioning. The team should also include

IC-120
06890



a representative of the Collectors of Sambalpur and Bolangir, and one representative from each of D S T E, Forest and Mining & Geology Departments.

(Action : BALCO).

(2) Immediate attention is to be paid by the BALCO, authorities for the proper road construction on the hill side including realignment if possible so as to ensure protection against landslides. For the present, to prevent boulders and soil from falling into Nursinghanath stream, a preventive stone wall should be constructed on the right bank of the stream. Boulders, Soil etc., which have already rolled down near the stream should be removed so as to prevent their movement towards the stream during the monsoons.

(Action : BALCO).

(3) Entire afforestation work within the mined area and outside the mined area should be entrusted to BALCO authorities in consultation with Forest Department so that direct responsibility can be fixed. Paying compensatory afforestation costs to the Forest Department can result in afforestation in areas away from the project areas and comparatively less accountability, BALCO authorities should take up plantation on the hill slopes where some forest growth has been damaged or destroyed due to falling boulders from the road construction work. (Action : DSTE & FF & M).

(4) A team of botanists from Sambalpur University may be sent at BALCO cost, to locate rare plant species if any, within the area to be deforested so that steps can be taken to grow these plants in the regional plant resources Centre, Bhubaneswar. (Action: SPCPB).

(5) In order to have some baseline data regarding the quality of the Nursinghnath stream water during the rainy season the Chairman, SPCPB, will send Scientists to collect samples of the water near the Kapildhara water fall and near the Nursinghnath temple. This will enable a comparison to be made between normal siltation and siltation due to mining and ancillary activities, if any. (Action : BALCO)

DETAILED FINDINGS : -

(1) There is little apprehension of the Nursinghnath temple and the Harishankar temple on both sides of the Gandhamardan hills being affected by the blasting operations of the mining project since the distance from the mining area to the temple sites is very large. The impact of blasting and vibrations is governed by the following accepted relationship :-

$$\frac{W}{(60)} = (D)^2$$

Where 'W' is blasting charge in pounds and 'D' is the distance in feet between the blasting and the structure in question. This relationship is indicated in the environment Management Plan (EMP). The blasting charge in the BALCO operations will be restricted to 1600 Lbs. and hence the acceptable distance is square root of $1600 \times 60 = 3098$ feet. In the present case the distance will be more than 2 Kms. This question has also been accepted by the Hon'ble Orissa High Court in L.J.C. No.26 of 1985. (Copy enclosed)

(2) The location plan of Nrusinghnath, Harishanka and other streams in relation to the mining activities in block 8 is indicated in Annexure-I. The top-sheet drawing would indicate that the two streams are originating from Block 6 which is about a kilometre and a half from Block 8. The source of the Nrusinghnath stream is also about 180 metres from the hill top while the mining operations will be restricted to about 24 metres from the hill top. While it is difficult to categorically state that the underground aquifer is in Block 6 only, it can be stated with some degree of certainty that because of the comparatively shallow depth of mining operations in Block 8, the underground aquifer will not be interred with even if this aquifer extends to Block 8 also. Moreover a large number of test borings and deep pits, some upto 40 metres in depth in Block 8 have not located any water nor has water been struck at the crushers site which has been excavated to a depth of 68 metres approximately from the hill top. Further, if the underground aquifer is being charged by seepage from the platen, it is expected that with more afforestation, the seepage in subsequent years will be increased. Therefore prima facie, it does not appear as if the mining activities in Block 8 of the hill top will in any way affect the source and the flow of the two streams, Harishankar and Nrusinghnath.

(3) The EMP prepared by MFCON for Bharat Aluminium Company has comprehensive safeguards against the dumping of mined materials and water out of the mined areas down the hill slopes. They have programmes for retaining walls,

garland drains, settling trenches, back filling over burden, and extensive afforestation. If this programme is sincerely implemented, there is reason to believe that all the adverse impacts of mining operations can be minimised, and indeed after completion of mining and back filling, the area can have more trees than today. This is also the experience of BALCO in their bauxite mining area in Amarkantak in Madhya Pradesh. For afforestation work on the mined areas, the project authorities need not pay costs for compensatory afforestation to the forest department, but should be squarely responsible themselves for this afforestation.

Similarly for areas beyond the leased area for which compensatory afforestation costs have been/are being placed with the forest department, it will perhaps be desirable that the project authorities themselves are shown areas near the project site for taking up compensatory afforestation. This will ensure that funds given for compensatory afforestation are not utilised by the forest Development in other places, and more important, the project authorities can be held directly responsible for the progress in afforestation.

(4) The committee felt that the road construction work from the foot hills to the hill top on the Nrusinghnath site has a larger potential for ecological imbalance than the mining operation itself. The road on the hill side is a forest department road with an alignment suitable for infrequent travel by very light vehicles, when this

alignment is being broadened to enable heavy mining machinery to move upto the hill top, this is resulting in large scale loosening of the hill side. As a result the committee felt that if this item is not taken care of at this stage, any landslide that may occur will most likely waste away sections of the road, and can result in blockage of the Nrusinghnath stream.

-O-O-O-

CHAPTER - SIX

"PEOPLES' RESPONSE TO DR. M.K. ROUT'S
COMMITTEE REPORT "

A sharp reaction was expressed at the superficial (Nature of the) Committee's report. He assessed the adverse effect of the BALCO Project on Gandhamardan. The local populace, alongwith intellectuals, also criticized Mr. Mohan Singh, the Managing Director of BALCO project for his immature statement on the agitation. He has criticised the agitators as anti-nationalist, and claimed that the Bauxite project would not adversely affect the environment. He also added that since BALCO had already spent about Rs. 38 crore, there was little chance that the project would be cancelled.

The report prepared by Dr. Mahendra Kumar's team, came down in favour of the BALCO project, but according to the reaction of people, it had not gone into the details of the damage done in terms of economy and environment. The report, which claims that under no circumstances would the Nrusinghnath & Harishankar areas be affected, proved vague about the issue of the Garuda Pillar bursting out. He also stated that the project would not affect the perennial streams, but when it is known that soil & silteration athered in Khandi jharan stream last year. The Report and its recommendations calculated the quantum of afforestation and deforestation in it's long term investment, but it faled to study the immediate loss from an ecological and economical point of view. The people

calculated that the quantity of afforestation to take place would not compensate for their immediate loss by deforestation.

We cannot assess an afforestation programme purely from an investment point of view, because it may not substitute for the loss in human terms.

The Government maintains that its National Development Policy will be un-successful unless there is people's participation in every stage and area of a development plan. In this case, unfortunately when a huge project was being prepared no local people or their representatives were consulted. The project was therefore not planned with the co-operation of the local poor people.

CHAPTER - SEVEN

"CONCLUSION"

This report has no clear conclusion, for two reasons. Firstly, it was not intended to take one side of the other not singly to present the strong as it happened giving the relevant information and statements from all these directly involved. Secondly, the story itself has not been concluded, for the State Government has itself felt unable to make a proper decision and has recently referred the matter upto the Government of India for consideration. So while we may not be able to offer a simple remedy for this problem. Still it is our hope that some lesson can be learnt from this account and that those grappling with similar issues, may have find something of interest of assistance in it. Development is a difficult and complicated process, which we can surely all learn more about. If nothing else, this BALCO report serves to remind us that it can be a sensitive issue too, functioning deep at the root of our complicated and ancient society.
